

WHAT IS CLAIMED IS:

1. A television distribution system for delivering a plurality of channel signals in separated TV channels to a plurality of cable television subscribers
5 in a geographic area comprises,
a cable distribution head end comprising:
a plurality of normal channel signal sources for producing normal TV channel signals to be delivered to subscribers;
10 a source of a substitute channel signal to be substituted for at least one normal channel signal;
signal distribution circuitry for receiving the normal channel signals and the substitute channel signal and for combining the received channel
15 signals into a spectrum of channels on a plurality of distribution trunks, the spectrum of channels on less than all of the plurality of distribution trunks including the substitute channel signal; and
means for generating a plurality of
20 substantially identical copies of the spectrum of channels of each distribution trunk and the distribution system comprises:
means for connecting the substantially identical copies of the channel spectrum of
25 each distribution trunk to different substantially contiguous zones of the geographic area.

2. The television distribution system of claim 1 wherein the means for connecting connects the spectrum of
30 channel signals from one of the distribution trunks to zones of the community separated from one another by zones connected to others of the distribution trunks and selected to demographically represent the community for market research purposes.

3. A television distribution system in accordance with claim 1 wherein the zones connected to at least one distribution trunk are selected to demographically represent the community for market research purposes.

5 4. A television distribution system in accordance with claim 1 wherein a portion of the subscribers are market research panelists and each zone includes a plurality of panelists.

10 5. A television distribution system in accordance with claim 1 wherein the connecting means comprises fiber optic means for connecting the substantially identical copies of the channel spectrum of each distribution trunk to different ones of the zones.

15 6. A television distribution system in accordance with claim 1 comprising a plurality of first signal combiners equal in number to the number of distribution trunks each first signal combiner receiving as inputs first channel modulated normal signals for which no signal substitution is performed and second channel
20 modulated signals including normal signals and at least one substitute signal.

25 7. A television distribution system in accordance with claim 6 wherein the channels of the first channel modulated signals are distinct from the second channel modulated signals.

8. A television distribution system in accordance with claim 7 comprising:
a video switch apparatus for receiving as inputs, normal channel signals and substitute channel signals and
30 for selectively connecting the input signals to a plurality of output ports of the video switch; and

circuitry for combining the signals at the output ports into a plurality of cable television channel spectrums equal to the number of distribution trunks.

9. A television distribution system in accordance with claim 8 comprising a plurality of channel modulators each connected to an output of the video switch, the channel modulators comprising a number of modulators equal to the number of distribution trunks for each channel of the second channel modulated signals.

10. A television distribution system in accordance with claim 1 comprising:
a video switch apparatus for receiving as inputs, normal channel signals and substitute channel signals and for selectively connecting the input signals to a plurality of output ports of the video switch; and
circuitry for combining the signals at the output ports into a plurality of cable television channel spectrums equal to the number of distribution trunks.

11. A television distribution system in accordance with claim 10 comprising a plurality of channel modulators each connected to an output of the video switch.

12. A television distribution system in accordance with claim 1 comprising:
a plurality of first signal conductors each for conveying a single channel modulated normal television signal;
at least one second signal conductor for conveying a single channel modulated substituted television signal;
a switched combiner means connected to receive signals from the first signal conductors and the second signal conductor for selectively connecting signals from predefined ones of the first and second signal conductors to the distribution trunks.

13. A television distribution system in accordance with claim 12 wherein the switched combiner unit comprises a switched combiner for providing signals to each of the distribution trunks.

5 14. A television distribution system in accordance with claim 13 wherein each switched combiner comprises a plurality of rf switches, one rf switch for each of the first signal conductors and the second signal conductor.

10 15. A television distribution system in accordance with claim 14 comprising a video switch for selectively connecting substitute channel signals and normal channel signals onto the first signal and the second signal conductors.

15 16. A television distribution system in accordance with claim 14 comprising video switch means for selectively connecting substitute signal sources to the second signal conductor modulated to a predetermined channel.

20 17. A television distribution system in accordance with claim 15 comprising a frequency agile modulator connected to an output port of the video switch for modulating substitute signals to a predetermined channel.

25 18. A television distribution system in accordance with claim 16 comprising means for demodulating selected ones of the normal channel signals and means for connecting resulting demodulated signals as inputs to the video switch.

19. A panelist response scanning system comprising
a plurality of product scanning units for location at
respective stores, a targetable television system serving
a community of people, a plurality of panelist
5 identification means for identifying respective
panelists, and a market research computer system for
coupling to said product scanning units,

said targetable television system including
head end means, a signal distribution arrangement
10 and a plurality of television receivers, said head
end means including means for transmitting normal
television program signals and substitute television
program signals on a plurality of distribution
trunks connected by the signal distribution
15 arrangement to said plurality of television
receivers, each television receiver being connected
to one of the distribution trunks preselected so
that a plurality of receivers connected to at least
one of the distribution trunks demographically
20 represents the community for market research
purposes, the head end including means for
selectively substituting substitute program signals
in lieu of normal television program signals for
transmission of a substitute program on one of the
25 distribution trunks to the plurality of the
television receivers connected thereto,

each of said respective stores having means for
receiving panelist identification information
corresponding to a said panelist identification
30 means and for receiving product identification
corresponding to said products to produce
transaction response signals including panelist
identification signals and product identification
signals respectively identifying the panelists and
35 the products upon the purchase of products at the
store, whereby the system is closed between the
targetable television system and the product

scanning units by the acts of the respective panelists in viewing the programs presented on the respective television receivers and presenting their corresponding panelist identification to one of the respective stores upon making the purchase of a product,

said market research computer system including means for identifying the particular panelist identifying information associated with each of the distribution trunks and responding to said transaction response signals to provide an indication of panelist behavior in response to said normal and substitute programs.

20. A panelist response scanning system in accordance with claim 19 comprising controller apparatus for controlling signal substitution on the distribution trunks and for identifying such substitution to the market research computer system.

21. A panelist response scanning system in accordance with claim 19 wherein the panelists are distributed throughout a viewer community and the distribution means comprise means for splitting the signals on each distribution trunk into a plurality of substantially identical copies and for conveying the signal copies by fiber optic means to demographically determined groups of panelists.

22. A panelist response system comprising a targetable television system serving a community of people, a plurality of panelist identifications for identifying respective panelists, means for collecting panelist purchase information, and a market research computer system,

said targetable television system including head end means, a signal distribution arrangement and a plurality of television receivers, said head

end means including means for transmitting normal television program signals and substitute television program signals on a plurality of distribution trunks connected by the signal distribution arrangement to said plurality of television receivers, each television receiver being connected to one of the distribution trunks preselected so that a plurality of receivers connected to at least one of the distribution trunks demographically represents the community for market research purposes, the head end including means for selectively substituting substitute program signals in lieu of normal television program signals for transmission of a substitute program on one of the distribution trunks to the plurality of the television receivers connected thereto,

the means for collecting panelist purchase information having means for receiving panelist identification information and for receiving product identification corresponding to products purchased by the panelist to produce transaction response signals including panelist identification signals and product identification signals respectively identifying the panelists and the products upon the purchase of products, whereby the system is closed between the targetable television system and the panelist purchase information by the acts of the respective panelists in viewing the programs presented on the respective television receivers and providing their corresponding panelist identification and purchased product information after making the purchase of a product,

said market research computer system including means for identifying the particular panelist identifying information associated with each of the distribution trunks and responding to said transaction response signals to provide an

indication of panelist behavior in response to said normal and substitute programs.

23. A panelist response scanning system in accordance with claim 22 comprising controller apparatus
5 for controlling signal substitution on the distribution trunks and for identifying such substitution to the market research computer system.

24. A panelist response scanning system in accordance with claim 22 wherein the panelists are
10 distributed throughout a viewer community and the distribution means comprise means for splitting the signals on each distribution trunk into a plurality of substantially identical copies and for conveying the signal copies to demographically determined groups of
15 panelists.